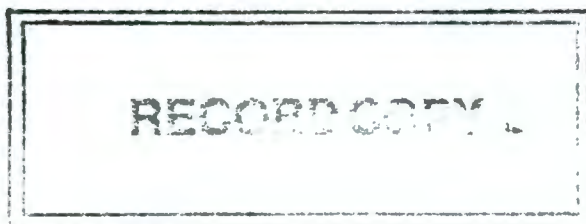


**START** 713509.0002

B091F8-TMA-585-22

0045986



**WESTINGHOUSE HANFORD COMPANY**

**Results of Analyses For:**

**ORGANICS & GENERAL CHEMISTRY**  
Case No. 08-060  
(TMA/ARLI Work Order No. A3-08-060)

**November 1, 1993**



**TMA Master Work Order N3-08-103**

PAGE 1.

RCVD: 08/25/93 DUE: 09/29/93

TMA/Noted 09.0003 CHAIN OF CUSTODY  
08/25/93 13:08:23

ORD # N3-08-103

KEEP: 09/29/94 DISP: S

000002

DASH SAMPLE IDENTIFICATION		STORED	TESTS
01A-W B091F8		ARLI	: WH099 WH118
01B-W B091F8	MS	ARLI	: WH099
01C-W B091F8	MSD	ARLI	: WH099
01D-W B091F8	DUP	ARLI	: WH118

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>eyanasmof</u>	<u>8/25/93</u>	<u>ARLI</u>	<u>8/25/93</u>	<u>C. Harris</u>	<u>8/26/93</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

9713509.0004

NJ-08-103

000002A

Westinghouse  
Hanford Company

## CHAIN OF CUSTODY

Custody Form Initiator

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-NR-2

Ice Chest No. 006

Bill of Lading/Airbill No. 0519009108

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks

Telephone (509) 376-5045

Collection Date 8/17/93

Field Logbook No. EFL-1096

Offsite Property No. W93-0-0718-2

## Sample Identification

B091F8

✓ 4; 500 mL; 2; 1L; Gs; WATER; TPH(DIESEL RANGE)  
 ✓ 1; 2 L; 2; 1L; G; WATER; OIL AND GREASE(H2SO4 pH<2)

KT 8/17/93

[ ] Field Transfer of Custody

Chain of Possession

(Sign and Print Names)

Relinquished By	Date	Time	Received By	Date	Time
K. V. Vapp / K. Vapp <sup>FLS</sup>	8/17/93	0910	L. Sweeney / L. Sweeney	8/24/93	0840
L. Sweeney / L. Sweeney	8/24/93	0900	J. Narciiso / H. Narciiso	8-25-93	11:07

## Final Sample Disposition

Disposal Method:

Disposed by:

Date/Time:

Comments:





000003

9713509

## SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 1 OF 1

RECEIVED BY (PRINT NAME):

CAROLE HARRIS

LOG-IN-DATE :

8-26-93

RECEIVED BY (SIGNATURE):

Carole Harris

ICE CHEST NO.

DOC

## CORRESPONDING

EPA  
SAMPLE  
#SAMPLE  
TAG  
#ASSIGNED  
LAB  
#REMARKS:  
CONDITION OF  
SAMPLE SHIPMENT, ETC

## REMARKS:

1. Custody Seal(s)

☒ Present / ☐ Absent\*  
Intact / Broken

B091F8 A308060

B09151 A308061

B091R3 A308061

2. Custody Seal Nos:

3. Chain of Custody  
Records☒ Present / ☐ Absent\*4. Traffic Reports  
or Packing List☒ Present / ☐ Absent\*

5. Airbill

☒ Airbill / ☐ Sticker  
☒ Present / ☐ Absent\*

6. Airbill No.:

7289153955

7. Sample Tags

☒ Present / ☐ Absent\*8. Sample Tag  
Numbers☒ Listed / ☐ Not Listed  
on Chain of Custody

9. Sample Condition:

☒ Intact / ☐ Broken\* /  
Leaking10. Does information  
on custody  
records, traffic  
reports, and  
sample tags agree?☒ Yes / ☐ No\*

11. Date Received at Lab:

8-26-93

12. Temp of Ice chest

2 °C

13. Time Received:

9:30

## SAMPLE TRANSFER

Fraction:

Area #:

By:

On:

\* Contact SMO and attach record of resolution

Reviewed By:

Logbook No.:

Date:

Logbook Page No.:

FORM DC-1



000005



QUESTIONS? CALL 800-238-5355 TOLL FREE.

7289153955

AIRBILL  
PACKAGE  
TRACKING NUMBER

7289153955

## RECIPIENT'S COPY

<b>1</b> From (Your Name) Please Print <b>SAMPLE CENTRAL</b> Company <b>T M A NORCAL</b> Street Address <b>2030 WRIGHT AVE</b> City <b>RICHMOND</b> State <b>CA</b> ZIP Required <b>94804</b>		<b>2</b> To (Recipient's Name) Please Print <b>CAROLE HARRIS</b> Company <b>TMA/ARL</b> Exact Street Address (We cannot deliver to P.O. Boxes or P.O. Zip Codes.) <b>160 TAYLOR STREET</b> City <b>MENLOVIEW</b> State <b>CA</b> ZIP Required <b>94016</b>					
YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.) <b>2-40-6406</b>		<b>H</b> IF HOLD FOR PICK-UP, Print FEDEX Address Here Street Address City State ZIP Required					
<b>3</b> PAYMENT <input checked="" type="checkbox"/> Bill Sender <input type="checkbox"/> Bill Recipient's FedEx Acct. No. <input type="checkbox"/> Bill 3rd Party FedEx Acct. No. <input type="checkbox"/> Bill Credit Card <input type="checkbox"/> Cash <input type="checkbox"/> Check							
<b>4</b> SERVICES (Check only one box) Priority Overnight (Delivery by next business morning) 11 <input checked="" type="checkbox"/> OTHER PACKAGING 16 <input checked="" type="checkbox"/> FEDEX LETTER* 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY* *Economy Letter rate not available. Minimum charge: One pound economy rate. Freight Service (for packages over 150 lbs.) 70 <input type="checkbox"/> OVERNIGHT FREIGHT** (Confirmed reservation required) *Delivery commitment may be later in some areas. Standard Overnight (Delivery by first business afternoon. No Saturday delivery) 51 <input type="checkbox"/> OTHER PACKAGING 56 <input type="checkbox"/> FEDEX LETTER* 52 <input type="checkbox"/> FEDEX PAK* 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Government Overnight (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE **Declared Value Limit \$500 **Call for delivery schedule.		<b>5</b> DELIVERY AND SPECIAL HANDLING (Check services required) 1 <input checked="" type="checkbox"/> HOLD FOR PICK-UP (Fill in Box 14) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE (Dangerous Goods Shipper's Declaration not required) Dry Ice, 6 UN 1845, X, kg. 504 III 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 12 <input type="checkbox"/> HOLIDAY DELIVERY (If offered) (Extra charge)		<b>6</b> PACKAGES WEIGHT in Pounds Only YOUR DECLARED VALUE (See 4910) Total Total Total DIM SHIPMENT (Chargeable Weight) L x W x H Received At <input checked="" type="checkbox"/> Regular Stop <input type="checkbox"/> Drop Box <input type="checkbox"/> B.S.C. <input type="checkbox"/> Station <input type="checkbox"/> On-Call Stop		Emp. No. Date Federal Express Use <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del. <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: <b>X</b> Date/Time Received FedEx Employee Number Base Charges Declared Value Charge Other 1 Other 2 Total Charges REVISION DATE 11/92 PART #137204 FXEM 3/93 FORMAT #155 <b>155</b> © 1992-93 FEDEX PRINTED IN U.S.A.	

9713509.0007

**GENERAL CHEMISTRY RESULTS****CASE NO. 08-060****Water Sample #:****B091F8****CASE NARRATIVE**

No problems were encountered during sample analysis. All QC results were acceptable.

Maureen Parrish

**Maureen Parrish**

9713509.0009

000007

TMA Inc.

REPORT

Work Order # A3-08-060

Received: 08/25/93

10/04/93 14:30:07

REPORT Westinghouse Hanford Company  
TO 2355 Stevens Dr., MSIN-H4-23  
345 Hills Street/3000 Area  
Richland, WA 99352  
ATTN Jeanette Duncan

PREPARED Thermo Analytical, Inc.  
BY 160 Taylor Street  
Monrovia, CA 91016  
ATTN Ms. Carole Harris  
PHONE 818-357-3247

Maureen Parrish  
CERTIFIED BY

CONTACT MKP CIH

CLIENT WHC SAMPLES 2  
COMPANY Westinghouse Hanford Company  
FACILITY \_\_\_\_\_

This report is for the sole and exclusive use of the client  
to whom it is addressed and represents only those samples  
herein described. Samples not destroyed in testing are re-  
tained a maximum of 30 days unless otherwise requested.

WORK ID 100-NR-2  
TAKEN By Westinghouse Staff  
TRANS Federal EXpress  
TYPE Liquid  
P.O. # N3-08-103-SU-AR  
INVOICE under separate cover

## SAMPLE IDENTIFICATION

## TEST CODES and NAMES used on this workorder

01 B091F8  
01 B091F8 MS  
01 B091F8 MSD  
01 B091F8  
01 B091F8 Duplicate  
02 Wet Chwmistry Blank  
02 LCS  
02 Fuels Blank

8015E3 8015M (Extractable) Form 3  
8015MS EPA 8015M EXTRACT.  
BLKSUM Method Blank Summary  
OIL GR Oil and Grease - gravimet.  
WCCLPL Anions & Wet Chem.  
WCLCS Lab Control Sample Summary  
WCQCD Quality Control Summary



9713509.0010

000008

TNA Inc.

REPORT

Work Order # A3-08-060

Received: 08/25/93

Results by Sample

SAMPLE ID B091F8 FRACTION 01D TEST CODE WCCLPL NAME Anions & Wet Chem.  
Date & Time Collected 08/17/93 Category \_\_\_\_\_

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Oil and Grease	9070	<5	mg/L	5

FORM I

## CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 08-060

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : August 25, 1993

## 1.0 DESCRIPTION OF CASE :

One water sample was analyzed for Total Petroleum Hydrocarbons (Diesel Range) according to USEPA SW846 Method 8015 Modified.

## 2.0 SAMPLE LIST :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>
B091F8	A3-08-060-01A	TPH	WATER
B091F8 MS	A3-08-060-01B	TPH	WATER
B091F8 MSD	A3-08-060-01C	TPH	WATER

TPH by 8015 Modified

## 3.0 COMMENTS :

## 3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received unbroken and properly documented.

## 3.2 ANALYSIS

## 3.2.1 TOTAL PETROLEUM HYDROCARBONS ANALYSIS COMMENTS :

## SEQUENCE NOTES :

The sequence was started on 09/16/93 and was analyzed according to the SW-846 Method 8015M. Five different concentrations of Diesel were injected as part of the initial calibration. The %RSD in the sequence was below the 20% QC limit. The %D in both of the continuing calibrations were below the 15% advisory QC limit.


## LOW LEVEL WATER :

The samples were extracted and analyzed within the SW-846 holding times. No extractable hydrocarbons in "Diesel range" were detected in the samples. Sample B091F8 was spiked with 50 mg/L of Diesel. The spike recoveries ranged from 60% to 80%. A blank spike was also prepared, and had an 84% recovery.

All of the results were within the QC criteria specified by the SW-846 Method 8015M.

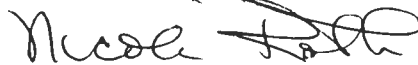
9713319.0012

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package is authorized by the Laboratory Manager or his designee, as verified by the following signature.



Nicole Roth  
Program Manager

10/28/93



for Wida Ang  
Organics Manager

10/28/93



9713509.0013

000019

TMA Inc.

REPORT

Work Order # A3-08-060

Received: 08/25/93

Results by Sample

SAMPLE ID B091F8FRACTION 01A TEST CODE 8015MS NAME EPA 8015M EXTRACT.Date & Time Collected 08/17/93

Category \_\_\_\_\_

## MODIFIED 8015 - EXTRACTABLE FUEL HYDROCARBONS

Matrix: WATERDate Analyzed: 09/23/93Dilution factor: 1.00Concentration Units: mg/L

Compound	Sample Result	PQL
Kerosene Range	NA	NA
C10 - C16 Jet Fuel Range	NA	NA
C9 - C22 Diesel Range	ND	2.0
Hydraulic Range	NA	NA

ND = Not detected at the specified limits

Form I